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Exploring workplace implications of Emotional Intelligence (WLEIS) in hospitals: Job satisfaction and turnover Intentions

Panagiotis Trivellas^{a,*}, Vassilis Gerogiannis^b, Sofia Svarna^b

^a*Technological Educational Institute of Chalkis, Department of Logistics, Thiva, 32200,, Greece*

^b*Technological Educational Institute of Larissa, Department of Project Management, Larissa, 41110, Greece*

Abstract

This paper investigates the impact of Emotional Intelligence (EI) at the workplace on Job Satisfaction (JS) and Turnover Intentions (TI) of nursing staff working in hospitals. Both nursing turnover and employees' satisfaction have been considered as issues of utmost importance in the provision of high quality services and superior performance at hospitals. The Wong and Law Emotional Intelligence Scale (WLEIS) was adopted to measure emotional intelligence, consisted of four dimensions: (1) self-emotional appraisal (SEA), (2) others' emotional appraisal (OEA), (3) use of emotion (UOE), and (4) regulation of emotion (ROE). This paper presents a field survey conducted in five private health care organizations which operate in the city of Larisa, Greece. The PLS approach based on 145 valid questionnaires, confirmed strong relationships among EI, JS and TI. More specifically, among the four EI dimensions, only SEA and UOE exert significant positive impacts on employees' satisfaction with personal development, while they also influence negatively turnover intentions. Interestingly, the other two EI components (OEA, ROE) failed to verify any relationship with JS and TI.

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1. Introduction

Emotional intelligence (EI), an emerging field in social and organizational psychology has been attracted also the interest of OB researchers, due to its crucial role at the workplace [1,2]. EI origins can be found at the concept of social intelligence, initially reflecting the ability of an individual to deal with his or her emotions. Scholars have extended this definition suggesting alternative conceptions, encompassing “motivation, non-ability dispositions and traits, and global personal and social functioning” [3].

* Corresponding author. Tel.: 00302262022569; fax: 00302262089605.

E-mail address: ptriv@tee.gr

Under this rationale, several empirical studies have provided supporting evidence that EI is an important antecedent of work related outcomes such as turnover, intention to quit, job satisfaction, and job performance [2,4]. In particular, EI lies at the cadre of the health care industry, given that the effectiveness of health care system depends mainly on employees' satisfaction and their ability to provide high quality services [5]. Moreover, nursing shortages are proved to be related with adverse incidents and aspects of hospital inefficiency [6]. In Greece, except from a plethora of doctors, the health care sector suffers from too limited number of nursing staff. Therefore, it comes of high importance to explore turnover intention and its antecedents in the health care sector.

High turnover, especially in Health Care, turns out to be a global phenomenon [7]. Many studies have shown that the intention of quitting a job stems from factors such as leadership support, organization commitment, and job satisfaction [8,9]. In addition, many researchers [10,11,12,13,14] provided evidence of a negative relation between EI and turnover intention. Such managerial issues have been approached in numerous studies with the employment of computational methods [15-29].

Despite the fact that job satisfaction, emotional exhaustion and stress of nursing staff have been investigated thoroughly, there is limited research upon turnover issues and particularly turnover intention of nursing staff. This study aims to investigate the direct relationships between the four dimensions of emotional Intelligence (EI), and both job satisfaction (JS) and turnover intention (TI).

2. Research Background

2.1. Emotional Intelligence in Health Care

The crucial role of EI has been widely recognized for the case of nursing staff working in health-care [12,30]. Every member of a hospital's staff has to deal, in a daily basis, with events bound with emotions such as birth, illness, death. Thus, nursing staff has to manage stressful situations imposed by the work environment, and at the same time they are obliged to perform in the most effective way. High responsibility upon patients' treatment is of utmost importance, given that its absence may even cost their life. In addition, these stressful factors within a health care organization have an impact on staff's job satisfaction and invite turnover intentions [8,12]. This argument has been empirically supported by many researchers, especially in the last decade [2,5,6].

Concluding, there is evidence that EI plays a significant role upon turnover intention -that will possibly lead to actual quitting [31]- and, therefore, EI should be further examined as a predictor of such a behavior. The previous argument becomes of a greater importance under the consideration that health care departments try to prevent intentions of quitting because they lead to higher costs and poor quality of services provided to patients [6,32,33].

Although there is considerable debate and ambiguity about the definitions of EI, most researchers are suggesting complementary rather than opposing conceptions and four distinct aspects of EI has been emerged in its measurement [34]. Building on these areas, Wong and Law [14] have developed the four-dimensioned WLEIS instrument as follows:

(1) Appraisal and expression of emotion in the self (self emotional appraisal, SEA): This dimension assesses the individual's ability to understand and express its deep emotions.

(2) Appraisal and recognition of emotion in others (others' emotional appraisal, OEA): This aspect reflects the individual's ability to perceive and understand the emotions of individuals around them.

(3) Regulation of emotion in the self (regulation of emotion, ROE): This component evaluates the individual's ability to regulate his/her emotions, facilitating its rapid and successful revival after psychological distress.

(4) Use of emotion to facilitate performance (use of emotion, UOE): This dimension echoes the individual's ability to utilize and direct his/her emotions towards constructive activities and personal performance.

2.2. Emotional Intelligence and Job satisfaction

Employees who enjoy a high level of EI tend to experience more positive moods and emotions and be more satisfied with their job, because they are more skilful at appraising, regulating and directing their own emotions in contrast to those with a lower overall EI. High EI employees should be more adept at identifying feelings of disappointment and frustration, as well as their root causes, and subsequently they may regulate their emotions and develop strategies and perseverance to deal with their negative effects [35]. On the other hand, employees with low EI levels are lacking behind in possessing abilities to understand and manage their emotions when they are dealing with difficult and complex situations, and as a result they adopt unbalanced behaviors exacerbating negative feelings and reducing their job performance levels.

Moreover, employees with high EI may facilitate teamwork by exploiting their ability to perceive, appraise and manage emotions of their colleagues. In this way, they can contribute positively to the confidence and morale of the group, enhancing team and individual satisfaction at the workplace for all members [36]. In health care sector, Guleryuz et al [37] examined and confirmed the strong positive effect of EI on job satisfaction of nurses working in seven university hospitals in Turkey. By considering these results, the first hypothesis of the research is defined as follows:

H₁: EI is positively related to JS

2.3. Emotional Intelligence and turnover intentions

Staff turnover is defined as “the number of employees that have quit within a given time period, usually one year, in relation to the total number of employees” [6]. Employee’s intention to quit as a proxy metric, is a situation that all managers try to eliminate within their organization as the actual quitting not only leads to higher cost, such as referring to recruiting new employees [6] but also has negative consequences on the quality of services provided. Specifically, in healthcare, this phenomenon may sometimes jeopardize patients’ health or safety [6].

Past research has confirmed a negative association between turnover intentions and EI [5,10,11,12,14,38,39]. Particularly, Wong and Law [14] have supported this argument and through their study they have highlighted the fact that the higher the emotional labor in a particular job, the stronger EI is negatively related to turnover intention. By considering that health care sector is a workplace with high emotional labor, the second hypothesis in this study is stated as follows:

H₂: EI is negatively related to TI.

3. Research Methodology

3.1. Sample & Questionnaire design

The field research was conducted in five private general hospitals in the area of Thessaly, Greece. Structured questionnaires were distributed to 266 nurses and 145 valid questionnaires were returned. Response rate was 54.5%. Most nurses’ age range from 26 to 45 years old (70.5%). The majority has work experience from 11 to 15 years (51.4%), and the 57.1% of the sample holds a degree from Technological Educational Institutes.

In this study, emotional intelligence was measured with the Wong and Law Emotional Intelligence Scale (WLEIS, [14]) instrument, which contains 16 items grouped in four subscales as follows: (a) self-emotion appraisal (SEA), (b) emotion appraisal of others (OEA), (c) use of emotion (UOE), and (d) regulation of emotion (ROE). Its strong convergence with previous EI measures such as the Trait Meta-Mood and the EQ-i is empirically verified. Furthermore, WLEIS could also predict external variables such as life satisfaction and job performance. Also, several researchers have utilized and validated this construct [1,40,41,42].

Job Satisfaction is measured using Melia and Peiro’s questionnaire [43]. It assesses various aspects of satisfaction, such as intrinsic job characteristics, personal development, supervision and physical environment.

This scale presents high-level of validity, high internal consistency and adapts adequately to different organizational contexts [44,45].

Intention to quit was measured by using the three item questionnaire of Kim et al. [46] that is also considered to provide high validity. To ensure the validity of the item translation, a (English/Greek) translate/back translate procedure [47,48] was used. Responses were assessed on 5-point Likert scales.

3.2. Constructs Validity

Data were analyzed through path modeling using the partial least squares (PLS) approach and the SmartPLS software [49]. The variance-based PLS procedure is a latent variable modeling technique that incorporates multiple dependent constructs and it is considered to be useful in investigating descriptive and predictive relationships particularly with samples of less than 200 participants. A strong advantage of PLS approach compared to covariance-based structural equation modeling is its ability to deal with situations where knowledge about distribution of the latent variables is restricted, requirements about the closeness between estimates and the data should be met and sample size is too small [50]. Besides, a minimum sample size that is ten times the largest number of structural paths directed at a particular construct in the inner path model is recommended [51]. The dependent variable with the largest number of predictor variables is personal development. This number is six. Thus, sample size should be at least 60. Based on this recommendation the sample meets the sample size requirements of PLS.

Table 1. Results of reliability, convergent and discriminant validity analysis of all scales.

| | AVE | CR | Cronbach's | | | | | | | | | |
|------|-------|-------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| | | | Alpha | SEA | OEA | UOE | ROE | PDEV | ENV | SUP | TI | |
| SEA | 0.846 | 0.956 | 0.939 | 0.920 | | | | | | | | |
| OEA | 0.765 | 0.928 | 0.895 | 0.673 | 0.874 | | | | | | | |
| UOE | 0.775 | 0.932 | 0.905 | -0.018 | -0.102 | 0.880 | | | | | | |
| ROE | 0.843 | 0.956 | 0.938 | 0.099 | 0.114 | 0.144 | 0.918 | | | | | |
| PDEV | 0.652 | 0.918 | 0.893 | 0.564 | 0.490 | 0.246 | 0.340 | 0.808 | | | | |
| ENV | 0.838 | 0.912 | 0.808 | 0.404 | 0.363 | 0.119 | 0.307 | 0.660 | 0.916 | | | |
| SUP | 0.770 | 0.909 | 0.850 | 0.464 | 0.454 | 0.101 | 0.202 | 0.685 | 0.475 | 0.877 | | |
| TI | 0.751 | 0.901 | 0.834 | -0.529 | -0.421 | -0.326 | -0.335 | -0.657 | -0.470 | -0.475 | 0.867 | |

SEA: Self emotion Appraisal, OEA: Others' emotion appraisal, UOE: Use of emotion, ROE: Regulation of emotion, PDEV: Personal development, ENV: Physical environment, SUP: Quality of supervision, TI: Turnover Intention, Bold diagonal elements are the square roots of the AVEs, off-diagonal elements are correlation coefficients among variables.

Preceding PLS, the Bartlett sphericity testing on the degree of correlation between the variables ($p < 0.001$) and the appropriateness of the sample according to Kaiser-Meyer-Olkin (KMO over 0.70) verified the appropriateness of the sample. Henseler and his colleagues [52] suggested that a PLS model should be developed in two stages: the measurement model and the structural model. The measurement model examines the relations between manifest variables (MV) and latent variables (LV). The measurement model is focused on the evaluation of the validity and reliability of the constructs in the model. Composite reliability (CR) and Cronbach's alpha were calculated to assess the reliability of scales. All constructs exhibited CR and Cronbach's alpha greater than the minimum acceptable level of 0.70 [53,54], as illustrated in table 1. The four dimensional latent structure of emotional intelligence as well as the unidimensionality of turnover intentions constructs were confirmed. On the other hand, examining the job satisfaction scale three principal components reflecting satisfaction with personal development (PDEV), physical environment (ENV) and quality of supervision (SUP) were derived.

Fornell and Larcker's [53] average variance extracted (AVE) criterion is adopted for the estimation of scales' convergent validity. AVE value of a latent variable should be higher than 0.50, in order to explain more than half of the variance of its indicators on average [52]. As shown in table 1, all scales met this criterion. In addition, convergent validity of a scale may be assessed by examining the factor loadings of the items on the model's constructs. High items' loadings on their underlying construct and lower loadings on unrelated constructs designates convergent validity. Barclay et al. [51] proposed that items' loadings of 0.70 or higher provide evidence for convergent validity. In our study, factor loadings of all items on their respective associated constructs are greater than 0.8 ($p < 0.01$), while their loadings on unrelated constructs are less than 0.4.

Table 2. Results of convergent and discriminant validity analysis of all scales.

| | items | Communality | Redundancy | R ² | CV- Communality | CV- Redundancy |
|------|-------|-------------|------------|----------------|--------------------|-------------------|
| SEA | 4 | 0.846 | | | 0.719 | |
| OEA | 4 | 0.765 | | | 0.598 | |
| UOE | 4 | 0.775 | | | 0.505 | |
| ROE | 4 | 0.843 | | | 0.716 | |
| PDEV | 6 | 0.652 | 0.042 | 0.694 | 0.501 | 0.437 |
| ENV | 2 | 0.838 | | | 0.438 | |
| SUP | 3 | 0.770 | | | 0.394 | |
| TI | 3 | 0.751 | 0.040 | 0.534 | 0.480 | 0.369 |

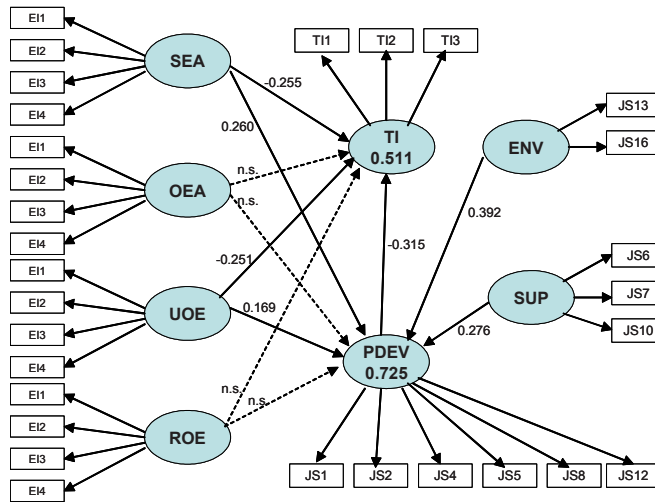
Discriminant validity of the measurement model was examined through Fornell and Larcker's [38] AVE test and correlations criterion. This test designates that the square root of the respective AVE of each construct should exceed the correlations between the factors making each pair. In that case, each dimension shares more variance with its own block of indicators than with another dimension representing a different block of indicators. As shown in table 1, all constructs in our research model demonstrated adequate discriminant validity, since the diagonal elements which are the square roots of the AVEs, are greater than the off-diagonal elements (correlations) in the corresponding rows and columns.

The bootstrapping procedure using 200 subsamples was conducted to evaluate the structural model and particularly, the statistical significance of all parameter estimates [55]. The PLS structural model is mainly evaluated by R² of endogenous LV [40], effect size (f^2) [56], Goodness of Fit index (GoF) [42], and by using the Stone-Geiser Q² test for predictive relevance [43,44]. Chin [55] characterized R² values of 0.67, 0.33, and 0.19 for endogenous LV as substantial, moderate and weak respectively. Results confirmed almost substantial R² values in our study, as shown in table 2. The Goodness-of-fit (GoF) index was employed to evaluate the overall fit of the model, and for our model it is 0.687, meaning that the model is able to take into account 68.7% of the achievable fit. The Q² statistics evaluate the predictive relevance of the model, whereas a score higher than 0 means that the model has predictive relevance [35]. In the present study, two kinds of Q² statistics are estimated, those are: (a) cross-validated communality (H^2_j) and (b) cross-validated redundancy (F^2_j). In accordance to effect size (f^2), the q^2 values of 0.02, 0.15, and 0.35 signify small, medium, and large predictive relevance of certain LV [52]. As shown in table 2, all values indicate strong predictive relevance of the relevant LV.

3.3. PLS analysis

The path relationships (standardized regression coefficients) of the model were estimated performing SmartPLS. The bootstrap procedure was used to obtain t-statistics in order to evaluate the significance of the parameters. The results of the parameter estimation are shown in Fig. 2. No serious problems of multicollinearity

exist between the independent variables as Variance Inflation Factors (VIF) are far below the 3 points limit suggested in Social Sciences literature.



(dotted lines indicate non significant paths, all estimates presented are significant at $p < 0.01$, all factor loadings are above 0.8 at $p < 0.01$)

Fig. 2. Structural model of EI, JS and TI.

Results provide empirical support for the hypotheses that emotional intelligence (EI) exerts a significant impact on both job satisfaction (JS) and turnover intentions (TI). Among the three components of JS, only personal development (PDEV) emerged as the most significant dimension directly associated with EI, while satisfaction with the physical environment (ENV) ($b = 0.392$, $p < 0.01$) and quality of supervision (SUP) ($b = 0.276$, $p < 0.01$) contribute to a substantial proportion of the variance in the PDEV. Among the four components of EI, only Self emotion Appraisal (SEA) and Use of emotion (UOE) confirmed direct associations with both PDEV and TI. As expected, SEA and UOE exert significant positive impact on PDEV ($b = 0.260$, $p < 0.01$, $b = 0.169$, $p < 0.01$ respectively), while they influence negatively turnover intentions ($b = -0.255$, $p < 0.01$, $b = -0.251$, $p < 0.01$ respectively). Thus, the two hypotheses were partially supported. Similarly, employees’ satisfaction regarding personal development is strongly and negatively related to turnover intentions ($b = -0.315$, $p < 0.01$).

4. Discussion

This study investigates the impact of the four EI dimensions upon both job satisfaction and turnover intentions. Past literature has confirmed significant relationships between EI, job satisfaction and intentions to quit. In particular, though several scholars have suggested a strong relationship between EI dimensions and job satisfaction [1,2,37], our findings reveal that only Self emotion Appraisal (SEA) and Use of emotion (UOE) among the four EI components are consistent with the hypothesized association. These results partially diverge from Guleryuz and his colleagues’ [37] findings that only regulation of emotion is strongly correlated with JS (both internal and external components of JS) followed by use of emotions aspect.

Employees who successfully appraise and express their emotions, are in a position to be better accepted and understood by their colleagues, and as a result, they possess the ability to develop themselves, manage their career path and lead individuals [10]. Moreover, individuals who can utilize their emotions to produce multiple and flexible plans for their future, to improve decision making, to cultivate creative thinking and to improve

persistence against challenging tasks are more adaptive and effective in dealing with both positive (satisfaction) and negative emotions (quitting). Thus, organizational members with high emotional intelligence (SEA & UOE) experience almost uninterrupted positive moods, inducing higher levels of satisfaction compared to those who consider such feelings as distress and disappointment, failing to experience a higher level of fulfillment. In a similar vein, emotionally intelligent employees are likely more capable to recognize, manage and use their emotions to overcome obstacles, develop their skills and qualifications, and finally, advance their horizon better than other individuals. They can also control stress caused by highly complex and demanding work environments preventing their negative influences on their career path [60,61,62].

Considering turnover, a strong negative association between EI and intentions to quit has been put forth by several scholars [5,10,11,12,14,38,39]. Our study provide supporting evidence as two EI components (SEA and UOE) are negatively related to quitting intentions.

To conclude, our research not only confirmed the relationships between EI, JS and TI, but also shed light upon the discrete EI dimensions, these are SEA and UOE, which formulate these associations, providing useful recommendations for management implications.

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